AUTUMN TERM 1: SEPT - OCT	AUTUMN TERM 2: OCT - DEC	SPRING TERM 1: JAN - FEB
Number and Algebra	**Number and Measurement**	**Geometry.**
AO: to revise, consolidate and build on yr 7 skills.	**AO: to extend previously learned skills in geometry, explore proportional reasoning and start studying algebra.**	**AO: to revise the basics of each topic and extend knowledge in it.**
The first half term we are revising, consolidating and building on basic number and geometry skills that pupils should have learned in year 7. Also recap basic algebra as pupils struggled last year. (Any new pupils may not have.)	This half term we will extend the number work started last half term and then start on measurement, which should be an extension of year 7 work.	Consolidate knowledge on each of the listed topics, then extend knowledge and practise problem solving skills.
	Main texts: Hodder KS3 Maths text books for number and geometry.	**Main texts: Hodder KS3 Maths text books for geometry**
Main texts: Hodder KS3 Maths text books for number.	**Number topics:**	**Geometry topics:**
Number topics:	Proportion, index notation and prime factorisation.	Angles (including internal and external angles of various polygons using both methods).
BODMAS, inverse operations, number properties.	If time, recap standard form.	Parallel lines rules.
Multiples, factors and primes.	**Measurement topics:**	Areas of common shapes, including combined shapes and circles (expand into areas of sectors).
Rounding.	Mass and time.	Pythagoras' Theorem. (Most struggled with this last year.)
Approximation and limits of accuracy (higher only).	Interpreting scales, the metric system, metric/imperial conversions.	Loci (This is a new topic, which brings together some the previous weeks' work plus constructions from last year. We will need to revise constructions first though.)
Fractions: mixed number, multiplication and division, problem solving.	Bearings (take a whole week, pupils always get confused).	Nets and prisms. (An opportunity for display pieces.)
Percentages: revise increase/decrease, percentage change, reverse percentages (which is a new topic).	Scale drawing (do a display piece – maybe a map of Auckland College 1st floor).	
Also, carry out base-line and numerical age tests in the first week.	Compound units.	
Algebra topics:	*End of term test.*	
Recap collecting like terms, expanding single brackets & factorising out a single term.	Also, if time, do some fun Christmas activities.	

SPRING TERM 2: FEB - MAR	SUMMER TERM 1: APR - MAY	SUMMER TERM 2: JUN - JUL
Algebra	**Geometry**	**Probability.**
AO: to extend previously learned skills in probability, number and angles.	**AO: to extend geometry knowledge and understanding.**	**AO: to extend geometry knowledge and understanding.**
We Introduced algebra in year 7 and recapped it in Autumn 1, now we need to expand on that introduction.	At KS3 pupils need to extend existing geometry knowledge and start new topics.	At KS3 pupils need to extend existing geometry knowledge and start new topics.
Main texts: Hodder KS3 Maths text books for algebra	**Main texts: Hodder KS3 Maths text books for geometry.**	**Main texts: Hodder KS3 Maths text books for geometry.**
Algebra topics:	**Geometry topics:**	**Probability topics:**
Solving equations. (Setting up and solving simple equations.)	Enlargements; briefly recap symmetry & translations, then use the power point to go through enlargements in detail. Most struggled with translations. We've not done rotation yet, see if we have time.	Collecting data (including designing a questionnaire - if possible, have a trip out to do a practical on this – we collected data on Lark Lane last year).
Solving equations. (Introduce expanding brackets.)	Similarity.	Combined events (space diagrams, tree diagrams, Venn diagrams (this will be new to them), other methods, and knowing which to choose.)
Simplifying simple, then harder expressions.	Trigonometry.	
Solving by substitution, then by elimination.	Equation of a straight line. (m = mx + c and also ax+ by = c) They struggled with this last year.	Estimating probability (a whole week).
Sequences: generating, special, linear, quadratic, how to recognise which is which.	Plotting graphs (including quadratic, cubic, and if time – show how to solve simultaneous equations graphically.)	Scatter diagrams.
End of term test.		Revision, *end of year exams*. School trips.